

**RE-DESIGN OF FOUNDATION OF EDUTORIUM UMS BY MANUAL
CALCULATIONS AND CALCULATIONS USING GEO5 SOFTWARE**

FINAL PROJECT

Compiled as one of the requirements of completing the undergraduate program at
the department of Civil Engineering



Arranged by:

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**CIVIL ENGINEERING STUDY PROGRAM
FACULTY OF ENGINEERING
MUHAMMADIYAH SURAKARTA UNIVERSITY**

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APPROVAL PAGE

RE-DESIGN OF FOUNDATION OF EDUTORIUM UMS BY MANUAL CALCULATIONS AND CALCULATIONS USING GEO5 SOFTWARE

Final Project

Has been tested in front of Examiners in Faculty of Engineering
Universitas Muhammadiyah Surakarta
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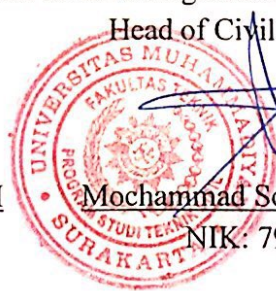
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The Final Project entitled 'RE-DESIGN OF FOUNDATION OF EDUTORIUM UMS BY MANUAL CALCULATIONS AND CALCULATIONS USING GEO5 SOFTWARE' has been approved by the Final Assignment Supervisor and accepted to fulfill some of the requirements to obtain a Bachelor's degree in the Civil Engineering Study Program, Universitas Muhammadiyah Surakarta.

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Stated that the final project that is made and submitted, the result of my work with Ms. Ir. Renaningsih, MT. except for quotations and summaries which have all been explained by me with the sources I mentioned. The following data are listed in this report are the original data that collected during the implementation of the final project. If there is someone else's data, I have clearly stated the sources.

I make this statement truthfully and if in the future there is an untruth in this statement, then I am willing to accept sanctions in accordance with applicable regulations at the Universitas Muhammadiyah Surakarta.

I make this statement consciously without coercion from any party.

Surakarta,
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MOTTO

"Recite in the name of your Lord who created - Created man from a clinging substance.

**Recite, and your Lord is the most Generous - Who taught by the pen - Taught man that
which he knew not. "**

(Al-Alaq : 3-5)

**"He created the heavens and the earth in true proportions. He makes the night overlap the
day, and the day**

**overlap the night. He has subjected the sun and the moon to His law; each one follows a
course for a time**

appointed..."

(Az-Zumar : 39)

**"It is He Who created the night and the day, and the sun and the moon. All (the celestial
bodies) swim along, each**

in its rounded course"

(Al-Anbya : 33)

DEDICATION

“Allahumdulillah! For everything even, the trials that makes me closer to You, oh Allah.”

- Dr. Bilal Philips

With all my respect, I can finally offer this small work of mine for:

1. For all the times you have given things to me, it is time for me to start giving back to you, Mom. The best start is to say thank you.
2. You are the one who took me in arms when I was little and then held my hand when I needed. Dad, I promise I will be a pillar for you when you get old. And you will always be in my heart
3. If I could give our friendship a name, it would be Memories Unlimited. Thanks for giving me beautiful memories that I am going to cherish for a lifetime. Thank you for your support!
4. My teacher Ir. Renaningsih, MT who helped and motivated me to do this research.
5. And my best university, Universitas Muhammadiyah Surakarta.

FOREWORD

Assalamu Alaikum Wr. Wb

“Allahumdulillah! For everything even, the trials that makes me closer to You, oh Allah.”

- Dr. Bilal Philips.

I would like to thank all those who have volunteered to provide support, prayers, opportunities, assistance, energy and facilities so that this research is completed as it should be. And i would like to convey this gratitude to:

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Surakarta, Nov 24th 2019

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